CLAIMS:

1. A rewritable optical record carrier comprising a substrate carrying a first recording stack of layers, which first recording stack comprises, in this order or in reverse order,

- a first dielectric layer,
- a recording layer comprising a phase-change recording material,
- a second dielectric layer, and
- a mirror layer, composed of a mixture comprising aluminum as a main component or composed of a mixture comprising silver as a main component,

characterized in that said first dielectric layer has a thickness $d_1$ in the range of 100 nm to 200 nm, and said second dielectric layer has a thickness $d_2$ according to one of the following relations

a) when the mirror layer comprises aluminum

$0.0225*d_2^2 - 2.6572*d_2 + 173.3(nm) < d_1 < 0.0225*d_2^2 - 2.6572*d_2 + 213.3(nm)$

b) when the mirror layer comprises silver

$0.0191*d_2^2 - 2.0482*d_2 + 149.6\ (nm) < d_1 < 0.0191*d_2^2 - 2.0482*d_2 + 189.6(nm)$.

2. A rewritable optical record carrier according to claim 1, characterized in that said second dielectric layer has a thicknessin the range of 20 nm to 50 nm.

3. A rewritable optical record carrier according to claim 2, characterized in that said first dielectric layer has a thickness in the range of 110 nm to 150 nm, and said second dielectric layer has a thickness in the range of 25 nm to 40 nm.

4. A rewritable optical record carrier according to claim 3, characterized in that said first and second dielectric layers comprise a mixture of ZnS and $SiO_2$.

5. A rewritable optical record carrier according to claim 4, characterized in that said phase-change recording material comprises a mixture of Ge, In, Sb, and Te and that said recording layer has a thickness in the range of $12 \pm 1.5$ nm.

6. A rewritable optical record carrier according to any of the claims 1 to 5, characterized in that it further comprises
- a spacer layer attached to said first dielectric layer, and
- a second recording stack deposited on said spacer layer.

7. A rewritable optical record carrier according to any of the claims 1 to 5, characterized in that it further comprises a dummy substrate disposed onto the first dielectric layer.